

AUG 19 2005

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***IN THE UNITED STATES PATENT AND TRADEMARK OFFICE***

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***PATENT***

In re application of: Glen E. Lee et al.

Attorney Docket No.: CISCPO86/828

Application No.: 09/330,225

Examiner: Vivek Srivastava

Filed: June 10, 1999

Group: 2611

Title: DATA TRANSMISSION OVER  
MULTIPLE UPSTREAM CHANNELS WITHIN A  
CABLE MODEM SYSTEM

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**CERTIFICATE OF TRANSMISSION**

I hereby certify that this correspondence is being transmitted via  
facsimile to the United States Patent and Trademark Office, Attention:  
Examiner Vivek Srivastava at facsimile number 571-273-8300 on  
August 19, 2005.

Signed: \_\_\_\_\_

Natalie Morgan

**PRE-APPEAL BRIEF REQUEST FOR REVIEW**

Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

Dear Sir:

Applicant requests review of the final rejection in the above-identified application. No  
amendments are being filed with this request.

This request is being filed with a Notice of Appeal.

The review is requested for the reasons stated on the attached sheets.

Remarks begin on page 2 of this paper.

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**REMARKS****Examiner Failed to Show Teachings for Several Claim Limitations and Sufficient Motivation to Modify such Teachings**

The Examiner rejected claims 1-11, 19-26, 28-29, and 36-52, 54, 55, 61, and 62 under 35 U.S.C. §103(a) as being unpatentable over Otani (U.S. patent 6,351,469). The Examiner has also rejected the claims 13, 15-17, 27, 35, and 53 under 35 U.S.C. §103(a) as being unpatentable over Otani in view of one or more secondary references Eng (U.S. patent 5,963,557), Friedman (U.S. patent 5,949,788), and Data-Over-Cable Service Interface Specification (DOCSIS), Radio Frequency Interface Specification, SP-RFI-I02-971008, Interim Specification, Cable Television Laboratories, 1997 (herein referred to as DOCSIS-1997). Pertinent arguments were presented in Applicants responses, including a response filed on 20 May 2004.

All independent claims 1, 13, 19, 24, and 26 include mechanisms for selectively transmitting or causing selective transmission of a first and second upstream data portion on a first and second upstream channel, respectively, having different frequency ranges from a cable modem within a cable plant. Claim 1 recites "selecting a first upstream channel for transmission of a first portion of the upstream data and selecting a second upstream channel for transmission of a second portion of the upstream data" and that "selection of the first and second upstream channels is based on a criteria selected from a group consisting of a load balancing criteria and a data type criteria." Claim 1 also requires "the second upstream channel differing from the first upstream channel in their respective frequency ranges." Claim 1 also require that "transmitting the first portion of the upstream data on the first upstream channel from a first PHY block of the cable modem" and "transmitting the second portion of the upstream data on the second upstream channel from a second PHY block of the cable modem... wherein the first PHY block differs from the second PHY block." The other independent claims 11, 19, 20, 35, 36, 37, 61 and 62 have similar limitations for selective transmission of two data portions onto two different frequency range upstream channels from two different PHY blocks based on a load balancing or data type criteria (or receipt of such transmitted data).

The reference Otani discloses a system having mechanisms for transmitting time multiplexed data and voice from a cable modem, rather than selectively transmitting data from different PHY blocks on channels having different frequency ranges from the cable modem based on a load balancing or data type criteria, in the manner claimed. Of note, the Examiner

has admitted that Otani fails to disclose "the first upstream channel has a different frequency range than the second upstream channel" and goes on to assert that it would be obvious to one skilled in the art to modify Otani to include this feature "to provide the simultaneous transmission of a [sic] on a plurality of channels." See last Paragraph of Page 4 through 1<sup>st</sup> Paragraph of page 5 of Office Action dated 19 May 2005. The Examiner is, in effect, arguing that it would be obvious to modify Otani to include transmission of data onto different frequency range channels so as to provide transmission of different frequency range channels. In other words, the Examiner is presenting a tautological statement that asserts that the reason for his assertion is the assertion itself. This argument cannot stand, and it is respectfully submitted that Examiner has failed to provide motivation for adding a feature for selectively transmitting from a cable modem different data portions onto different frequency range upstream channels. Additionally, the Examiner has not provided a reference disclosing motivation to modify Otani to include this feature.

The Examiner has also admitted that Otani fails to disclose "a first PHY block for the first channel and second PHY block for the second channel wherein the first PHY block differs from the second PHY block" and takes Official Notice that PHY blocks are well known for upstream transmission according to the DOCSIS standard. The Examiner also fails in this case to provide motivation for modifying Otani to disclose this feature and merely states that "it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Otani to include the DOCSIS standard including the use of PHY blocks for each channel to enable upstream transmission in accordance with industry tested and reliable standard." See Page 5 of Office Action dated 19 May 2005. It is respectfully submitted that the Examiner cannot use a tautological statement such as "it would be obvious to add feature X to provide feature X" as motivation. The Examiner has not provided legal motivation for modifying Otani to selectively transmit from two different PHY blocks of a cable modem onto two different frequency range upstream channels (or receive data transmitted in such a way), in the manner claimed. Additionally, the Examiner has not provided a reference disclosing motivation to modify Otani to include this feature.

Applicants submit that the Examiner failed to make a *prima facie* case of unpatentability by failing to show a legally sufficient motivation to modify the Otani reference to include a mechanism for selective transmission of two data portions onto different frequency range upstream channels from two different PHY blocks of a cable modem based on a load balancing

or data type criteria (or receipt of such transmitted data), in the manner claimed. For the foregoing reasons, it is submitted that independent claims 1, 11, 19, 20, 36, 37, 61 and 62 are patentable over Otani.

It is noted that the secondary references Eng and Friedman are utilized along with Otani to reject only independent claim 35 (and some other dependent claims), while only Otani is used in the rejections of the other independent claims 1, 11, 19, 20, 36, 37, 61 and 62. These secondary references also fail to teach or suggest selectively transmitting from different PHY blocks of a cable modem onto different frequency range upstream channels based on a load balancing or data type criteria (or receiving such data), in the manner claimed. Friedman is directed towards network devices that use multipoint trunking to increase bandwidth for data transmitted between network devices. In other words, Friedman merely shows using multiple physical links between network devices to increase bandwidth without mention of different frequency ranges, rather than selectively transmitting different data portions from a cable modem's different PHY blocks onto different frequency range upstream channels based on a load balancing criteria or data type criteria, in the manner claimed. Friedman teaches a system that transmits on different channels based on a reservation criteria, rather than a load balancing or data type criteria in the manner claimed.

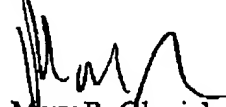
Additionally, independent claim 35 recites "a processor configured to receive a downstream signal within a downstream channel into the cable modem, configure the first PHY block to transmit data over a first upstream channel obtained from the downstream signal, configure the second PHY block to transmit data over a second upstream channel having a different frequency than the first upstream channel and obtained from the downstream signal." The Examiner admits that Otani fails to disclose such a feature and asserts that "it would have been well known to assign upstream channels in downstream channel (see Limb et al. col. 2 lines 18-35) and it would be obvious transmitting upstream channel allocation information in a downstream channel from a headend or server" since it "would have obviated the need for the receiver to determine which channel is available for upstream transmission. Limb merely discloses assigning an upstream channel in a downstream channel, and fails to teach receiving assignment of a first and second upstream channel in a same downstream channel, in the manner claimed. Thus, it is submitted that claim 35 is patentable over the cited references.

In view of the foregoing, it is respectfully submitted that the rejections of all pending claims should be withdrawn.

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Respectfully submitted,  
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